Book Reviews.

LES LÉSIONS DU SYSTEME GRAND SYMPATHIQUE DANS LE TABES, ET LEUR RAPPORT AVEC LES TROUBLES DE LA SENSIBILITÉ VISCÉRALE. Par le Dr. Jean-Ch. Roux. Georges Carré et C. Naud, Paris, 1900.

The French theses are often valuable additions to medical knowledge. The most recent of a brilliant series issued from the service of Prof. Dejerine is by Dr. J. C. Roux, and is on a subject of much importance, viz.: The condition of the sympathetic system in tabes, and the symptoms depending on the alteration of this system. Dr. Roux's thesis is less bulky than some that are published, but it contains the results of thorough and original work, and one reads it with a feeling of satisfaction, because he is not obliged to skip pages filled with well-known facts presented as though the author believed that in a multitude of words there is wisdom.

Comparatively little study has been given to the condition of the sympathetic system in tabes, and Dr. Roux has chosen almost an untilled field. He has studied in seven cases of tabes the large splanchnic nerves and the cervical and thoracic portions of the sympathetic chain. The fibers of Remak, the non-medullated fibers, are difficult to differentiate and their alteration escapes detection; Dr. Roux therefore has examined only the medullated fibers. The small medullated fibers are far more numerous in the sympathetic system than are the large ones, and the former Dr. Roux has found degenerate in tabes. He has made laborious counts of the nerve fibers of the sympathetic system, and has found that about one-half of the normal number of small medullated fibers disappear in tabes, while the large medullated fibers remain unaltered. He was unable to find alteration of the nerve cells in the sympathetic ganglia examined by him. Graupner likewise could not find alteration of these cells in a case of combined sclerosis, although he found degeneration of the nerve fibers of the sympathetic system. Dr. Roux has attempted to determine the origin of the small and large medullated fibers in the sympathetic system, and has experimented on the cat. Division of the anterior and posterior spinal roots caused degeneration of a considerable number of the small medullated fibers, but the large ones remained intact; if, however, the spinal ganglia were removed many of the large fibers degenerated. From these experiments he concludes that the latter fibers arise in the spinal ganglia and have a sensory function, while the small medullated fibers come from the spinal cord through the anterior and posterior roots. The normal condition of the large fibers in tabes would seem to indicate that the spinal ganglia are not diseased. The disappearance of many of the small medullated fibers in the sympathetic system was the result of degeneration of the posterior spinal roots, and Dr. Roux has found when he examined the posterior roots of the lower cervical and upper thoracic region in tabes that the small nerve fibers in these roots had almost entirely disappeared.

The clinical portion of Dr. Roux's work, and the application of his findings in explanation of the symptoms of tabes, are especially interesting and valuable. It is certain, he thinks, that the small medullated fibers of the sympathetic system in the posterior spinal roots, except perhaps in the lumbar region, have a sensory function; the motor fibers of the sympathetic come from the vagus or the anterior spinal roots. The disturbance of visceral sensibility in tabes is therefore the result of destruction of sympathetic fibers in the posterior spinal roots. The anesthesia of the testicle, of the bladder, of the mammary gland and of the trachea, *i. e.*, absence of the peculiar discomfort caused by pressure over the trachea below the cricoid cartilage, are symptoms of disease of the sympathetic system. Ocular symptoms in tabes, including the Argyll-Robertson phenomenon, are not the result of the degeneration of the nerve fibers in the cervical sympathetic, because ocular symptoms from disease of the sympathetic system are the result of involvement of the anterior roots in the cervico-thoracic region, and the alteration in the cervical sympathetic chain in tabes is dependent on degeneration of posterior root fibers. Dr. Roux has found the sympathetic fibers normal in a case of paretic dementia in which Argyll-Robertson's phenomenon existed, and from this he concludes that this sign is not of sympathetic origin.

The discomfort produced by a blow over the epigastric region may not be experienced if the patient is tabetic, and this loss of sensation is the result of alteration of the solar plexus and splanchnic nerves.

The theory of a syphilitic origin of tabes has led to the use of iodide of potassium in the treatment of the disease. Dr. Roux shows that this medication may have serious consequences. The iodide of potassium may irritate the stomach, alter the mucosa, and cause more or less intense gastritis. He has seen symptoms of dyspepsia develop in about a dozen cases of tabes after the administration of the iodide. Pain is experienced in the lower portion of the thorax, especially in the left side, and may be bilateral, and sometimes is very severe. It is felt about an hour or two after eating, increases gradually in intensity, and then disappears to return when the next repast is taken. It is increased by anything which causes gastric irritation, and may be associated with vomiting, by which it may be relieved. The omission of the iodide and restriction to a milk diet are usually sufficient to overcome the pain in the side. The pain produced by the administration of the iodide may finally cause typical gastric crises, as may dyspepsia from other causes in tabetic patients, but these crises differ from the true tabetic gastric crises in their gradual onset and gradual disappearance, in their development after gastric irritation, or at the menses, and in their suppression when a milk diet is taken and the use of the iodide is discontinued. All this is knowledge of very practical importance.

SPILLER.